

**ANTENNA STRUCTURE FOR DEVICES WITH CONDUCTIVE
CHASSIS**

ABSTRACT OF THE DISCLOSURE

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A multiband element antenna (120) used in combination with a unique metal chassis design that enhances antenna performance and that enables the design of a compact and efficient antenna system. A cellular flip phone (100) that has a conductive chassis includes a flip up antenna (120) that pivots between an extended
10 and a retracted position. The antenna (120) pivots at a point that is located on one edge of the top of the cell phone body (102). The conductive chassis of the flip cover (104) is grounded to the flip phone body (102) at a single point or single surface that is substantially opposite the antenna RF feed (122). Conductive surfaces of the cellular flip phone body (102) are grounded at a single point that is near the antenna
15 RF feed point (122). This grounding arrangement has been found to control the flow of induced currents on the conductive portions of the flip cover (104) and body (102), thereby improving the performance of the device's antenna (120).